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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/954,886	09/18/2001	Sanket S. Amberkar	DE3-0173/DP-302828	8234

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EXAMINER

BROADHEAD, BRIAN J

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/954,886

Applicant(s)

AMBERKAR ET AL.

Examiner

Brian J. Broadhead

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7,13-19,21,22 and 29 is/are allowed.
- 6) ☒ Claim(s) 1-6,8-12,20,23-28 and 30-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1-21-04</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 8-12, 20, 23-28, and 30-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Schaffer, 5048630.

3. As per claims 1, 2, 3, 4, 12, 20, 23, 24, 25, and 26, Schaffer discloses a torque assist function responsive to a signal indicative of an input device torque for providing a torque-assisting command to a motor on column 3; a steering-pull compensator responsive to a signal indicative of a valid detection cycle for modifying said torque assist command to the motor by an offset corresponding to a detected steering condition on lines 59-63, on column 3, and lines 42-46, on column 9; at least one summing function in signal communication with said torque assist function and with said steering-pull compensator for summing the provided torque assist command with the offset corresponding to a detected input device pull-condition on lines 36-41, on column 9; a filter responsive to the signal indicative of input device torque on lines 27-32, on column 9; and a condition processing block for determining if the vehicle is being driven in substantially straight path on lines 42-45, on column 9.

4. As per claims 5, 6, 8, 9, 10, 11, 27, 28, 30, 31, 32, and 33, Schaffer discloses an enable block for validating the detected steering-pull condition on lines 42-45, on

column 9; an enable switch for receiving a binary control signal from the enable block on lines 42-47, on column 9; a memory switch for receiving its own signal at its primary input terminal in figure 6; a function block for providing a signal to a non-inverting input of the summing function in figure 6, the box that shows  $T_p = T_p + \Delta T$ .

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schaffer, 5048630, in view of Matsuoka et al., 5339243.

7. Schaffer discloses the limitations as set forth above. Schaffer does not disclose the motor is electric. Matsuoka et al. teach the motor is electric on lines 33, on column

8. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the electric motor of Matsuoka et al. in the invention of Schaffer because such modification would offer the same advantages of a hydraulic cylinder as stated on lines 33-37, on column 8.

***Response to Arguments***

8. Applicant's arguments filed 1-21-04 have been fully considered but they are not persuasive. The applicant arguments that Schaffer does not disclose a motor or modifying the torque-assist command to the motor are still not convincing. A motor is a device that imparts motion. The hydraulic system of Schaffer does impart motion on the

steering system. Applicant also argues that Schaffer fails to disclose a valid detection cycle, but this is also not the case. On column 9, lines 42-46, Schaffer discloses the measurement period of his system and the conditions necessary for the trim device to operate including a substantially straight vehicle path. The examiner's position on these items has not changed.

9. The argument that Schaffer does not filter the input device torque is also not convincing. Shaffer samples the input signal over a period of 30 seconds with 30 to 60 observations to get an accurate measurement, a filtered measurement.

10. The argument that measuring the deflection of the driving shaft does not correlate to a straight path is also not convincing. On lines 46-50, on column 3, Shaffer discloses straight path running being a condition.

11. The argument that Schaffer doesn't disclose an enable block is not convincing. The straight path running mentioned above is an enable block.

12. The argument that Schaffer doesn't disclose a memory switch for receiving its own output signal at its primary input is also not convincing since the  $T_p = T_p + \Delta T$  block in figure 6 shows this. The memory holding  $T_p$  is updated with a newly calculated value based on its old value. This also applies to the argument over the summing block. The block that determined  $\Delta T$  is the function block that provides a signal to a summing function.

***Allowable Subject Matter***

13. Claim 7, 29, 13-19, 21, and 22 are allowed.

Art Unit: 3661

14. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not disclose a function block for preventing an offset correction corresponding to a detected steering-pull condition from exceeding a desired value; and determining whether at least one of the duration of the monitored ignition signal exceeds a threshold duration value and the distance traveled by vehicle exceeds a threshold distance value.


**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Broadhead whose telephone number is 703-308-9033. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 703-305-8233. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

BJB

  
THOMAS G. BLACK  
SUPERVISORY PATENT EXAMINER  
GROUP 3600